



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,602	01/23/2007	Nils T. Ottestad	TAN-1001US	1534
24923	7590	05/12/2009	EXAMINER	
PAUL S MADAN			STUART, COLIN W	
MADAN & SRIRAM, PC			ART UNIT	PAPER NUMBER
2603 AUGUSTA DRIVE, SUITE 700				3771
HOUSTON, TX 77057-5662				
			MAIL DATE	DELIVERY MODE
			05/12/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/559,602	OTTESTAD, NILS T.
	Examiner	Art Unit
	COLIN STUART	3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 December 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-4 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 02 December 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/2/05</u> . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference numeral 16 found in Fig. 1 lacks explanation in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The term "comprising" is improper language.

Information Disclosure Statement

3. The information disclosure statement filed 12/2/05 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because copies of foreign references translated into the English language were not provided. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the language "characterised in that..." found in claim 1 line 5 makes it unclear whether the preceding limitations including the breathing valve, blower, face mask, supply line, filter device, and compressed-air container are part of the invention.

The use of the language "a pressure control valve (13) for establishing an overpressure in the entire breathing system upstream of the breathing valve (2)..." in lines 7-8 makes it unclear whether the pressure control valve controls an overpressure and the overpressure is found upstream of the breathing valve and downstream of the check valve or if the pressure control valve itself is found in the location relative to the check and breathing valve.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the

broad recitation "breathing valve (2)" in line 2, and the claim also recites "demand valve" in line 5 which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Botos et al. (4,031,887) in view of Hill et al. (6,629,525).**

In regards to claim 1, Botos shows a portable breathing apparatus in Fig. 1, which includes a face mask 1, a breathing valve 2, a supply line (lines connecting the various elements in Fig. 1), a filter device 5, and a compressed-air container 10 for alternative supply of air to breathing valve. Botos also shows a check valve 13 which regulates the flow in the supply line circuit. Botos also shows a pressure control valve 11 for establishing an overpressure in the entire breathing system upstream of the breathing valve and downstream of the check valve, preventing gas or liquid from the surroundings from penetrating the system. The breathing valve 2 of Botos is a demand valve because "during inhalation and exhalation [the valve] cause a gas flow in the breathing circuit in the direction of arrows 4" (col. 2 ln. 27-30; see Fig. 1). Despite Botos' breathing valve 2 and check valve 13 not being explicitly designated as a

demand valve or check valve, they perform the functions of these two types of valves and furthermore one of ordinary skill in the art at the time the invention was made would recognize making the valves of the demand and check type an obvious design consideration as they would perform equally as well. Botos is silent as to providing the apparatus with a blower; however Hill teaches a portable oxygen system which includes a blower (Hill 112; Fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the supply element 18 of Botos with the blower as taught by Hill in order to provide a higher gas supply pressure than provided by supply element 18 of Botos. With the addition of the blower to the apparatus as taught by Botos, the check valve 13 is upstream of the blower and the filter device 5 cleans the breathing air from the blower.

7. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Botos et al. (4,031,887) and Hill et al. (6,629,525) as applied to claim 1 above, and further in view of Wallen (6,035,851).

In regards to claim 2, the modified Botos device discloses all the limitations as discussed above but is silent as to the filter device including two filter units connected in parallel. However, Wallen teaches a breathing circuit which includes two filter units (Wallen 16 and 22) which are connected in parallel (see Wallen Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the modified Botos apparatus to have the dual filter in parallel setup as taught by Wallen in order to provide addition cleaning to the breathing air should one filter fail.

In regards to claims 3 and 4, the modified Botos device discloses all the limitations as discussed above including a bellows (Botos 8) which constitute an elastic buffer volume filled with air from the blower when the breathing valve 2 is closed and gives off air when an upstream air pressure of the breathing valve falls below a given value. The bellows (Botos 8) is found upstream of the breathing valve as the Botos' apparatus recycles breathing air in the bellows which supply reusable breathing air to the breathing valve.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are considered to be pertinent art: Bartos (4,409,978) and Deas et al. (6,817,359) both relate to a portable breathing apparatus and Fangrow, Jr. et al. (5,839,436) relates to a demand valve.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to COLIN STUART whose telephone number is (571)270-7490. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/COLIN STUART/
Examiner, Art Unit 3771

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771